

HOLSTEIN / RED HOLSTEIN PROOF EXPLANATION

April 2024



The new breeding value

RZFeedEfficiency

The new breeding value RZFeedEfficiency describes how much less or more feed (kg dry matter) a cow eats for her productive performance compared to the expectation. Productive performance is not only considered to be the milk yield as ECM (energy corrected milk), but also the body gain, which ultimately generates income as a carcass.

The calculation of the feed eaten too much or less than expected is calculated on the basis of estimated breeding values for the traits dry matter intake (DMI), energy corrected milk (ECM) and body weight change (BWC). An energetic evaluation is carried out for the output of an animal (ECM, BWC) in order to convert this into "feed equivalents" or kg dry matter (DM).

The RZ feed efficiency has a reliability of 40% and refers to the average of 3 lactations and therefore represents the productive life of the cow.



From a breeding perspective,...

... feed efficiency is largely independent of previous main breeding traits and therefore also independent of the overall breeding values RZG and RZ€. Since there are no correlations between feed efficiency and previous selection traits or RZG, large differences in RZFE can also be found in TOP bulls according to RZG, see table 1.

In the future, the RZFE will also be integrated into the breeding goal after gaining some experience with the new breeding value.

Table: 1 The table shows how genetically efficient and less efficient bulls are differentiated and what causes the differences in efficiency.

	Ø TOP 10% RZFE	ØBOTTOM 10% RZFE	Difference TOP-LOW
RZFE	111.2	87.9	23.3
FE (kg)	861	-932	1,793
BW (kg)	4.7	34.9	-30.2
BWC (kg)	3.9	47	-0.8
ECM (kg)	2,424	1,669	755
DMI (kg)	126	1,621	1,495

Source: BRS